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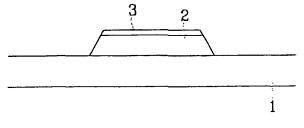
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(54) Title: A WIRE FOR A DISPLAY DEVICE, A METHOD FOR MANUFACTURING THE SAME, A THIN FILM TRANSISTOR ARRAY PANEL INCLUDING THE WIRE, AND A METHOD FOR MANUFACTURING THE SAME



(57) Abstract: First, a Cr film and a CrOx film are deposited and patterned using an etchant including 8-12% Ce(NH₄)₂(NO₃)₆, 10-20% NH₃ and remaining ultra pure water to form a gate wire including a plurality of gate lines, a plurality of gate electrodes and a plurality of gate pads. Next, a gate insulating film, a semiconductor layer and an ohmic contact layer are formed in sequence. A Cr film and CrOx film are deposited in sequence and patterned using an etchant including 8-12% Ce(NII₄)₂(NO₃)₆, 10-20% NH₃ and remaining ultra pure water to form a data wire including a plurality of data lines, a plurality of source electrodes, a

plurality of drain electrodes and a plurality of data pads. A passivation layer is deposited and pattered to form a plurality of contact holes respectively exposing the drain electrodes, the gate pads and the data pads. A transparent conductive material or a reflective conductive material is deposited and patterned to form a plurality of pixel electrodes, a plurality of subsidiary gate pads and a plurality of subsidiary data pads electrically connected to the drain electrodes, the gate pads and the data pads, respectively. The gate lines and the data lines with low reflectance are used as a light-blocking film for blocking the light leakage between the pixel areas, and do not increase the black brightness. Accordingly, a separate black matrix need not be provided on the color filter panel, thereby securing both aperture ratio of the pixel and high contrast ratio.

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